

# Atomic Reactors for Converting Sea Water May Be Ready by 1972

By CHARLES E. CHAPEL  
State Assemblyman

I have discussed previously the probability of converting sea water to fresh water for domestic, agricultural, and industrial use by means of an atomic reactor, more correctly called a nuclear reactor.

Recently the United States Secretary of the Interior has publicly confirmed my suggestion by releasing interviews to the effect that within a period of 15 years it will be possible to produce fresh water from sea water by means of nuclear reactors at a price low enough to compete with other sources of fresh water. He did not mention the Feather River Project, more recently called the California Water Plan, but certainly he had that in mind.

The cost of transporting water in aqueducts from northern California to Los Angeles County over the Tehachapi Mountains is prohibitive, partly because electricity must be used to operate the pumps that force the water over the mountains. Another cost factor is the money that must be paid to people whose land is condemned under the State's power of eminent domain to provide the route for the aqueducts. Cost of construction is merely one more important item.

## A Bitter Pill

The bitter pill for Los Angeles County people to swallow is that the water from the California Water Plan must be purchased twice. First, it is paid for in the form of State taxes; secondly, the water itself must be purchased when and if it is delivered to us. The net result is that such water from the north will cost as much, or probably more, than water obtained by means of nuclear reactors.

There are many ways of classifying nuclear reactors but the division of all reactors into three principal groups is probably the most acceptable to most people. First, reactors can be classified according to their purpose. Second, they can be grouped according to the type of nuclear fuel used. Third, they can be listed according to speed of the nuclear particles which are technically called fission neutrons.

## Reactors Classified

1. A research reactor is one made to produce neutrons (elementary particles of atomic energy) for research by scientists, for making isotopes (used in medical diagnosis and treatment and for other purposes), and for testing a newly designed reactor before it goes into production.

2. A production reactor is one used to produce fissionable material (material vital to production of atomic energy). Another name for it is breeder reactor, so-called because it not only keeps its own operation going but also produces atomic material for other purposes. This almost approaches the old idea of perpetual motion, but not quite.

3. A power reactor is one

that produces heat to generate steam to drive steam turbines, to generate electric power, or to convert water into steam which is then condensed to form fresh water. This production of breeder reactor is the one in which we are most interested in for solving the water problem. Furthermore, it is possible to combine a production reactor with a breeder

reactor and perform two important functions with the same installation, although this combination type reactor is not yet regarded as entirely practical.

## Russians Are Ahead

Scientific journals to which I subscribe report that the Russians have an accelerated program of scientific education, that by the time an intelligent boy or girl completes the Russian equivalent of an American high school, he knows as much mathematics, chemistry, and physics as the

average American college student who has completed two years at one of our colleges or universities.

The other "catch" in this statement is that the Russians do not believe in what Americans call "progressive education." Their system is highly competitive. They use report cards. If a student does not maintain high grades, he does not remain in the Russian equivalent of an American high school. Instead, he or she is taken out of the high school, which is organized as a col-

lege preparatory institution, and he or she is sent to a trade school where he learns some manual occupation.

When it comes to athletics, the Russians do not believe in spectator or grandstand athletics. All students actively participate in physical exercise. The best athletes are in the regular sports. Those who cannot qualify as leaders in organized athletics are given mass calisthenics, bayonet exercise, and rifle marksmanship. Let me repeat that they

are not encouraged to sit in their seats and watch the pom-pom girls and yell leaders. I am not praising the Russian system of education. I am only reporting what I have learned. We are in competition with the Russians. They are a genuine threat to our way of life. Please write to me at Post Office Box 777, Inglewood 5, and tell me if you think the American school system should stay the way it is or how it should be improved.

## Date Night To Continue

Disneyland's "Date Nite" will be continued on Saturday nights beginning this coming week end, Oct. 26, park authorities announced today. Friday night's "Date Nite" will be discontinued.

Because of its popularity, "Date Nite" was continued past the summer season as one of the most popular recreational activities in southern

California. Disneyland will now be open from 10 a.m. through 7:30 p.m., daily except Saturday when the park will remain open until midnight for "Date Nite" dancing.

**LONG LAKE**  
Loch Lomond, the largest lake in Scotland, is only about one to five miles wide, but about 23 miles long.

**KCOP**

SEARCH FOR ADVENTURE Thurs. 7:00-8:00 P.M.

**CHANNEL 13**



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... in the best way we know ... with a big bouquet of bargains ... because you made the opening of Ralphs new Lakewood Store such a huge success! And so, the welcome "Grand Opening" values continue in all 36 Ralphs Complete Food Stores, with a special invitation to visit Ralphs new store and register for valuable prizes! See Ralphs at 4949 Paramount, corner Del Amo, in Lakewood!

Hurry for Free Seamless and Stretch Nylons! Offer ends Oct. 31. But keep on saving Ralphs Gold Cash-Register Tapes for quality Christmas Gifts, FREE!

**Ralphs FRESH PRODUCE**

DELICIOUS WASHINGTON STATE Apples EXTRA FANCY Lb. **10<sup>c</sup>**

VALENCIA JUICE Oranges SWEET 5 Lb. for **33<sup>c</sup>**

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FRESH RED RADISHES OR Green Onions 3 Bunches for **10<sup>c</sup>**

**COFFEE** MANNING'S 1-lb. Can **79<sup>c</sup>** 2-lb. Can ... **\$1.57**

**HEN TURKEYS** NORBEST U.S.D.A. GRADE A Eviscerated Individually Boxed for Added Protection Lb. .... **39<sup>c</sup>**

**FRESH CHICKEN PARTS** SWIFT'S PREMIUM

Breasts Lb. .... **59<sup>c</sup>** Legs & Thighs Lb. .... **59<sup>c</sup>**

Wings Lb. .... **33<sup>c</sup>** Backs Lb. .... **11<sup>c</sup>**

Livers Lb. .... **73<sup>c</sup>** Gizzards & Hearts Lb. .... **23<sup>c</sup>**

SWIFT'S PREMIUM Sliced Bacon 1-lb. Pkg. .... **59<sup>c</sup>**

BREADED FANTAIL SEA PAK FROZEN Shrimp 8-oz. Pkg. .... **49<sup>c</sup>**

FREEMAN CERTI-FRESH Western Oysters 8-oz. Tin. .... **53<sup>c</sup>**

**WAXTEX SANDWICH BAGS** for Halloween Treats Pkg. of 75. .... **17<sup>c</sup>**

**Ralphs Hallowe'en Candy** JELLY BEANS 14-oz., CANDY CORN OR 35 WRAPPED POPS 10-oz. Pkg. .... **29<sup>c</sup>**

25 FOIL WRAPPED 2c MINTS 9-oz., OR HALLOWE'EN MIX 14-oz. Pkg. .... **39<sup>c</sup>**

70 WRAPPED POPS 20-oz. Pkg. .... **49<sup>c</sup>**

**Gallo** SLICED COTTO 5-oz. .... **23<sup>c</sup>**

SLICED ITALIAN DRY 3-oz. .... **29<sup>c</sup>**

RATH BLACK HAWK Canned Ham Save \$1.00 6 3/4-lb. .... **\$6.19**

SWIFT'S PREMIUM Ham Quicks 10-oz. Can. .... **59<sup>c</sup>**

**Ralphs FRESH BAKERY**

**Pumpkin Pie** DELICIOUS OLD FASHIONED PUMPKIN FILLING IN FLAKY PASTRY 6-inch. .... **35<sup>c</sup>** 8-inch. .... **59<sup>c</sup>**

**Brown 'n Serve Rolls** PARTLY BAKED—YOU FINISH THE JOB AND SERVE FRESH HOT DELICIOUS ROLLS ANY TIME Pkg. of 6. .... **19<sup>c</sup>**

WONG'S FROZEN Chinese Food Chicken or Pork Chop Suet, Egg Foo Young, or Fried Rice Pkg. .... **49<sup>c</sup>** or **39<sup>c</sup>**

**FROZEN PEAS** BIRDS EYE 10-oz. Pkg. for **2 27<sup>c</sup>**

PETUNA Pet Food 6-oz. Can. 2 for **23<sup>c</sup>**

This Ralphs Coupon  
**WORTH 15<sup>c</sup>**  
On Purchase of One 10-lb. Bag C. & H. CANE SUGAR  
Thursday, Friday, Saturday and Sunday only, October 24, 25, 26 & 27, 1957  
LIMIT ONE SUGAR COUPON PER CUSTOMER

**GET 25<sup>c</sup> REFUND** Bisquick Biscuits Homestyle or Buttermilk 8-oz. Can. .... **15<sup>c</sup>**

**Sanka INSTANT COFFEE** 4-oz. Jar Marked "10c Off" Price \$1.09 Less 10c SALE PRICE. **99<sup>c</sup>**

**SUNSHINE KRISPY** Saltine Crackers 1-lb. .... **31<sup>c</sup>**

**LINDSAY MEDIUM** Ripe Olives 7 1/4-oz. .... **25<sup>c</sup>**

**CHIFFON** Facial Tissues Pkg. of 400. .... **26<sup>c</sup>**

**\$1.00 in cash** for 12 Red Heart labels  
**Red Heart Dog Food** 1-lb. 6 for **89<sup>c</sup>**

This Ralphs Coupon  
**WORTH 15<sup>c</sup>**  
On Purchase of one 24-oz. Bottle DUDE RANCH PANCAKE SYRUP  
Thursday, Friday, Saturday and Sunday only, October 24, 25, 26 & 27, 1957  
LIMIT ONE SYRUP COUPON PER CUSTOMER

**BEETS** LIBBY'S Sliced 1-lb. 2 for **25<sup>c</sup>**

**TUNA** MALIBU STAR Light Chunk 6 1/2-oz. Can **19<sup>c</sup>**

**Ralphs CATERING** Chocolate Malt Ice Cream Pint ... for **49<sup>c</sup>** Half Gallon **97<sup>c</sup>**

**Spry Shortening** 3-lb. Can. .... **79<sup>c</sup>**

**MAHATMA LONG GRAIN Rice** 2-lb. **37<sup>c</sup>** 3-lb. **55<sup>c</sup>**

**RAISINS** 15-oz. Pkg. **15<sup>c</sup>**

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